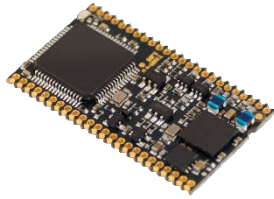
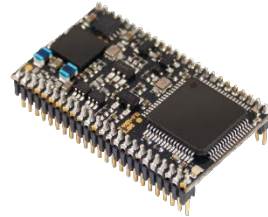


TWN4 MULTITECH NANO

MINIATURE LF/HF/NFC RFID READER/WRITER FOR EXTERNAL DIRECT MATCHED ANTENNA



Version C0 (SMT)
31 x 17.8 x 2.7 mm



Version C1 (THT)
31 x 17.8 x 8.11 mm

Elatec's TWN4 family of transponder readers and writers allows users to read and write to almost any 125 kHz, 134.2 kHz and 13.56 MHz tags and/or labels – it supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and ISO standards like ISO14443A/B (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC).

The TWN4 MultiTech Nano is designed for integration into machines or other devices. It can be connected to an external antenna through a printed circuit board (125 kHz/134.2 kHz, 13.56 MHz or both).

Special features:

- + compact design (31 x 17.8 x 2.7 mm / 1.22 x 0.7 x 0.12 inch)
- + components mounted only on one side for easy integration on the main application
- + edge plated pads for surface mounting (C0) allows easy and reliable PCB mounting, connector option (C1) also available for THT mounting
- + powerful SDK for writing apps which are executed directly on the reader
- + firmware update in the field possible
- + onboard 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + direct chip-commands support
- + compliance to EMV contactless protocol specification V2.3²⁾
- + supports connection of external ISO7816 compatible SAM cards
- + CCID and PC/SC 2.01
- + 8 GPIOs
- + supports quick centralized (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + 3D construction data (STEP) available on request



Elevator



EV Chargers



Access



Shop POS



Fitness
Equipment



Ticket POS



PC Log-on



Document
Management



Driver ID



Vending



Parking



Gaming



Locker Locks



Time
Attendance



Industrial
PC

TECHNICAL DATA

FREQUENCY	125 kHz/134.2 kHz (LF) / 13.56 MHz (HF)	
ANTENNA	Externally, direct matched for 13.56 MHz – 490 μ H \pm 5% for 125 kHz/134.2 kHz	
DIMENSIONS (L X W X H)	31 mm x 17.8 mm x 2.7 mm / 1.22 inch x 0.7 inch x 0.12 inch	
POWER SUPPLY	3.3 V +/- 5% (direct supply) or 4.3 V - 5.5 V (use of on-board voltage regulator)	
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 μ A typ. / Cyclic Operation: TBD	
TEMPERATURE RANGE	Operating: -25 °C up to +80 °C (-13 °F up to +176 °F) Storage: -45 °C up to +85 °C (-49 °F up to +185 °F)	
RELATIVE HUMIDITY	5% to 95% non-condensing	
READ- / WRITE DISTANCE	Up to 100 mm / 4 inch, depending on antenna, environment and transponder	
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s) Serial TTL: up to 115.200 baud Air: up to 848 kbit/s	
MODES OF OPERATION	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01	
MTBF	500,000 hours	
WEIGHT	Approx. 7 g	
SUPPORTED TRANSPONDERS (STANDARD)	<p><u>ISO14443A:</u> LEGIC Advant¹⁾, MIFARE Classic 1k & 4k EV1²⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2²⁾, MIFARE Plus S, X, MIFARE Pro X³⁾, MIFARE Smart MX³⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1, NTAG2xx, PayPass³⁾, SLE44R35, SLE66Rxx (my-d move)³⁾, Topaz</p> <p><u>ISO14443B:</u> Calypso³⁾, Calypso Innovatron protocol³⁾, CEPAS³⁾, HID iCLASS¹⁾, Moneo³⁾, Pico Pass⁴⁾, SRI4K, SRIX4K, SRI512, SRT512</p> <p><u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁵⁾, NFC Active and passive communication mode</p> <p><u>ISO15693:</u> EM4x33³⁾, EM4x35³⁾, HID iCLASS¹⁾, HID iCLASS SE/SR¹⁾, ICODE SLI, LEGIC Advant¹⁾, M24LR16/64, MB89R118/119, SRF55Vxx (my-d vicinity)³⁾, Tag-it, PicoPass⁴⁾</p> <p><u>125 kHz, 134.2 kHz:</u> AWID, Cardax, CASI-RUSCO, Deister⁶⁾, EM4100, 4102, 4200⁷⁾, EM4050, 4150, 4450, 4550, EM4305⁸⁾, FDX-B, EM4105, HITAG 1⁹⁾, HITAG 2⁹⁾, HITAG S⁹⁾, ICT⁸⁾, IDTECK, Isonas⁸⁾, Keri, Miro, Nedap⁶⁾, PAC, Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX, TITAN (EM4050), UNIQUE, ZODIAC</p>	
SUPPORTED TRANSPONDERS (VERSION P)	All Standard Transponder, Cotag, G-Prox ⁶⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch	
SUPPORTED TRANSPONDERS (VERSION PI)	Requires external TWN4 SIO Card, All Standard Transponder, All Version P Transponder, HID iCLASS ¹⁰⁾ , HID iCLASS SE/SR/SEOS(CSN and Facility Code/PAC) ¹⁰⁾ , HID iCLASS Elite & SE Elite	
PERIPHERAL INTERFACES	USB, 2 x serial (logic level 3.3 V, CMOS 5 V tolerant), I ² C, SPI, 8 GPIOs, CAN ⁸⁾ , Clock/Data, Wiegand, 1-Wire ⁸⁾	
OS SUPPORT	Windows XP, Vista, Embedded CE ⁸⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁸⁾ , iOS ⁸⁾ , MAC OS X ⁸⁾	
CERTIFICATIONS	RoHS-II compliant	
ORDER CODE(S)	T4NM-FDC0	C0 Standard
	T4NM-FDC0-P	C0 Version P
	T4NM-FDC0-PI	C0 Version PI
	T4NM-FDC1	C1 Standard

¹UID only ²r/w enhanced security features on request ³r/w in direct chip command mode ⁴UID only, read/write on request ⁵UID + r/w public area ⁶Hash value only ⁷Only emulation of 4100, 4102 ⁸On request ⁹Without encryption ¹⁰UID + PAC (CSN & Facility Code), r/w on request

DRAWING

Top view

